

R E M A R K S

Reconsideration of this application is respectfully requested.

Claims 1-12 were again rejected under 35 USC 102 as being anticipated by USP 7,031,506 ("Tsuji et al"). This rejection, however, is again respectfully traversed.

According to the present invention as recited in each of the independent claims 1, 6 and 12, an image processing apparatus, method and computer program are provided wherein an output-size within an image reading area of an image reader is specified, a part of a two-dimensional image data that corresponds to the output-size is selected, the selected part of the two-dimensional image data is analyzed, and a processing condition for the selected part of the two-dimensional image data is determined based on the analysis. In addition, according to the present invention as recited in each of the independent claims 1, 6 and 12, at least one of gradation processing to control image contrast, frequency processing to control image sharpness, and dynamic range compression to narrow the image contrast is preformed on the selected part of the two-dimensional image data based on the determined processing condition.

That is, according to the claimed present invention, the image area for determination of an image processing condition is limited to the specified output-size (for example, 14 inches by

17 inches) in a scanning range (for example, 17 inches by 17 inches) of the image reader. The image data in the limited area is analyzed, and image processing is performed only on the limited area under the determined image processing condition. As a result, according to the claimed present invention, a stable image processing result can be achieved. See the disclosure in Fig. 3 of the present application and the disclosure in the specification at, for example, pages 16-17.

Tsujii et al, by contrast, teaches an image processing apparatus in which an initial stream setting unit 18 is set so that partial data corresponding to an image is transmitted as an initial image (i.e., data corresponding to a low-resolution version of the image is transmitted). Next, in Tsujii et al, image data corresponding to the initial image is decoded and the obtained decoded image data is displayed. Next, a diagnostic support unit 16 analyzes the decoded image data 13 (i.e., the entire image), searches for a disease location in a patient's body based upon the analysis, and outputs positive area data 17. Then, based upon the identified positive area data 17, an input control unit 14 determines which area(s) of the image should be concentrated on for further analysis. See Figs. 2 and 7, and the disclosure in Tsujii et al at columns 5-6.

It is respectfully submitted that the image processing technique taught by Tsujii et al is fundamentally different from

the image processing apparatus, method and computer program of the claimed present invention.

In particular, it is respectfully pointed out that Tsujii et al does not at all disclose, teach or even remotely suggest specifying an output-size within an image reading area of an image reader as according to the claimed present invention. According to the claimed present invention, the output size of the read image may be specified, for example, to suit the size of an output device. By contrast, in Tsujii et al, the initial stream setting unit 18 sets the initial stream used for the diagnostic support unit 16. In Tsujii et al, it may not be necessary to read an entire data stream. That is, it may be sufficient to read only a low-resolution version of the image for the diagnostic support unit 16. Accordingly, the initial stream setting unit 18 sets the initial stream appropriate for the purpose of diagnostic support. This, according to Tsujii et al, enables priority reading of an area of interest (AOI) important for diagnosis. Clearly, the initial stream setting unit 18 of Tsujii et al has nothing to do with specifying an output-size within an image reading area as according to the claimed present invention.

As recognized by the Examiner, Tsujii et al discloses in Fig. 4 thereof passing an image through a high pass filter. It is respectfully submitted, however, that the use of a filter in

Tsujii et al has nothing to do with specifying an output size within an image reading area of an image reader as according to the claimed present invention. According to the claimed present invention, the output size within the image reading area is specified by, for example, a user, as a determined output area for further analysis and processing. By contrast, in Tsujii et al, circular filters of, for example, 8mm, 12mm or 16mm diameter are utilized to extract an area of a shadow candidate (AOI), which has nothing to do with the output size of the image as according to the claimed present invention.

Still further, it is respectfully submitted that Tsujii et al does not disclose, teach or suggest analyzing a selected part of the two-dimensional image data, and then determining a processing condition for the selected part of the two-dimensional image data based on the analysis, as according to the claimed present invention. That is, according to the claimed present invention, only a selected area of the image is analyzed for determining the image processing conditions. By contrast, in Tsujii et al, the diagnostic support unit 16 analyzes the entire decoded image data 13 using circular filters to extract shadow candidates to determine positive area 17. And it is respectfully submitted that Tsujii et al does not teach that only a selected area, for example, the positive area 17, is analyzed to determine

an image processing condition as according to the claimed present invention.

Yet still further, it is respectfully submitted that Tsujii et al does not disclose, teach or suggest performing at least one of gradation processing, frequency processing, and dynamic range compression on the selected part of the two-dimensional image data based on the determined processing condition, as according to the claimed present invention. As disclosed in Tsujii et al at column 7, lines 33-38, the decoded image data 13 is input to a shadow detection unit for detecting shadows in the decoded image data 13. In Tsujii et al, a high-frequency image and a low-frequency image are produced from the input image data 13 using a high-pass filter 41 and a low-pass filter 42. Thus, in Tsujii et al, the entire image is passed through the high pass filter to perform frequency processing which controls the sharpness of the image, whereas according to the claimed present invention, image processing is performed only on a limited processing area (i.e., a selected part of the two-dimensional image data).

As pointed out in the Amendment filed May 9, 2007, the claimed present invention enables image processing to be performed more precisely since the effect of image data not corresponding to the limited processing area which includes the ROI (i.e., non-ROI image data) can be eliminated. As a result, according to the present invention, a better quality ROI image

can be obtained than in the case where the image processing condition is determined by analyzing image data corresponding to the entire image (including both the ROI and non-ROI) read by the image reading apparatus. And it is respectfully submitted that Tsujii et al simply cannot achieve this advantageous effect of the claimed present invention.

In view of the foregoing, it is respectfully submitted that the present invention as recited in independent claims 1, 6 and 12, and claims 2-5 and 7-10 respectively depending therefrom, clearly patentably distinguishes over Tsujii et al, taken singly or in combination with any of the other prior art references of record, under 35 USC 102 as well as under 35 USC 103.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

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